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Defense Innovation on Display

Israel Aerospace wins NIS 390m Hercules maintenance contract

The follow-on agreement between Israel's Defense Ministry and IAI for the transport carriers is for five years.

Israel Aerospace Industries Ltd. (IAI) (TASE: ARSP.B1) has been awarded a five year contract worth NIS 390 million by Israel's Ministry of Defense to continue maintenance of the air force's fleet of Hercules (Karnaf) transport aircraft. For the most part these are aging aircraft, which have been part of Israel Air Force since the 1970s.

In the past two years, the Israel Air Force has received eight new Super Hercules Shimshon (C-130-J) model aircraft, which were procured from Lockheed Martin for \$65 million per plane. A ninth such aircraft will be delivered to the Israel Air Force in 2018.

IAI Bedek Division head of the Israel Air Force planning administration David Pollack told "Globes" that the new deal is a follow-on contract on a ten year agreement which expired at the end of 2016. The previous agreement was worth \$250 million.

The new deal is only for five years because it is unclear how many new aircraft for missions like midair refueling will be delivered to the Israel Air Force. Delivery of these aircraft would alter the volume of work required and thus the structure of the contract between IAI and the Ministry of Defense.

The maintenance contract also includes Knafaim Holdings Ltd. (TASE: KNFM) unit Kanfei Maintenance as a subcontractor undertaking work worth NIS 52 million.

Pollack said, "In maintenance of these planes there are many challenges with a large part of them very old, having served the air force for decades. Production lines for spare parts for these planes have already closed down and

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one of our challenges is to find spare parts and suitable components and provide them quickly or fully servicing the planes."

Maintenance services will be provided by IAI and Kanfei Maintenance at the Nebatim air base in the Negev, which houses the transport carriers.

Knafaim won a contract several months ago to maintain the Israel Air Force's Nachshon intelligence gathering aircraft. Defense sources estimate that contract as being worth \$10 million.

Israel's StageOne Ventures closes \$110m VC fund

StageOne III will invest in 15-18 Israeli IT startups, focusing on seed and series A rounds, with investments ranging between \$500,000 and \$3 million.

StageOne Ventures, an early stage venture capital firm focusing on Israel-related technology startups, has announced the closure of its third venture capital fund, with \$110 million in committed capital. Led by Yuval Cohen, Yoav Samet, and Tal Slobodkin, StageOne Ventures is headquartered in Herzliya near Tel Aviv and has US offices in Palo Alto, California. StageOne Ventures strives to help entrepreneurs traverse the Israel-Silicon Valley axis and build global businesses.

Stage One Venture Capital Fund III, L.P. (StageOne III), the firm's largest fund to date, follows a \$46 million first fund and \$65 million second fund closed just three years ago. This latest fund closed at \$110m after an oversubscribed fundraising process in summer 2017. StageOne III is backed primarily by StageOne's existing LPs, with the addition of several prominent investors from Israel, the US, and Europe.

StageOne focuses on deep-technology endeavors in B2B software and next-generation IT infrastructure. StageOne III will aim to invest in 15-18 companies, focusing on seed and series A rounds, with a typical initial investment size in the range between \$500,000 and \$3,000,000.

As artificial intelligence, deep learning, big data analytics, and advanced DevOps paradigms continue to impact multiple industries, StageOne Ventures partners with entrepreneurs who seek to harness transformative innovation to lead categories in enterprise software, cyber security, fintech, communication, and the future of transportation.

Venture capital funds managed by StageOne Ventures have invested in more than 30 companies to date. The new fund follows StageOne II, a 2014 vintage fund, that currently boasts 14 portfolio companies, including, Avanan, Capitali.se, DBmaestro, Minerva, Otonomo, and SafeDK, which have already raised significant subsequent rounds

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of financing from leading global investors. StageOne's first fund (StageOne I) has been fully invested, and had six exits including Guardium (acquired by IBM), Traffix (acquired by F5 Networks), and Octalica (acquired by Broadcom).

Israel's Defense Ministry unveils tomorrow's weapons

A stealth tank, unmanned submarine and sniper drone that can carry a 90-kilogram payload are among the new systems developed by the Ministry of Defense.

An especially agile and deadly stealth tank; an unmanned submarine for missions remote from Israel's borders; an unmanned helicopter capable of bearing supplies to forces on the battlefield; and a special system that will make every rifle shot accurate and deadly are only some of the new systems developed by Israel's Ministry of Defense Administration for the Development of Weapons and Technological Infrastructure (MAFAT) and unveiled yesterday in a special press briefing by MAFAT head Brigadier General (res.) Daniel Gold for reporters on military affairs.

MAFAT is currently conducting 1,500 research and development ventures. Yesterday's briefing shows how the IDF will deal with the security challenges facing it in the coming decades.

The main goal is preserving the IDF and Ministry of Defense's technological advantage over the countries in the region and the terrorist organizations operating in and from it. Billions of shekels are being spent each year on developments, most of them secret, which are aimed at facilitating the realization of MAFAT's vision: sealing Israel's borders, including finding a solution for the underground threat - principally the tunnels in the Gaza Strip and on the Lebanese border; eliminating terrorism; destroying enemy targets in real time

throughout the Middle East; improving the survivability, mobility, and maneuverability of armored fighting vehicles (AFVs) and tanks; and achieving superiority in cyberspace.

A large proportion of this work involves close and intensive connections of MAFAT with startups making their first steps towards big solutions. Some of these ideas will take years before they mature technologically into a product. Some will never materialize, as is often the case with R&D plans.

The future tank

Carmel, one of the impressive plans that MAFAT has been working on in recent years, together with the Ministry of Defense Tank Program Administration (TPA), involves the IDF's future tank. TPA is currently producing the most advanced version of the tank in use by the IDF Armored Corps - the Merkava 4. Dozens of these tanks rolling off the assembly line of the repair and maintenance center at the Tel Hashomer base each year are equipped with the most advanced technologies that make the Merkava an especially threatening, deadly, and well-protected war machine - due, among other things, to the Rafael Advanced Defense Systems Ltd.'s Trophy active defense system, which is designed to intercept threats like advanced anti-tank missiles and RPG rockets.

The Carmel, however, will be completely different. MAFAT's plans are for a tank that will be small, agile, lightweight, easy to operate, and cheaper than the expensive tanks currently being sold on the market.

The top-secret tank's performance so far has been impressive. Demonstrations have been confined to Ministry of Defense simulations. "Its maneuvering capabilities will be very good, the team operating it will be substantially smaller - perhaps two or three soldiers, it will be powered by a hybrid electrical propulsion

system, and it will also have an unmanned and groundbreaking version," Gold told the reporters.

MAFAT believes that a final decision on progress in the future tank program is about three years off. The parties who will make the decision about the program will be shown a deadly war machine that is the stuff of science fiction. It will be equipped with "transparent armor," so that the crew, which will be invisible inside it, will see events outside through an advanced system of touch screens constantly informing the crew of what the many cameras installed on it are photographing.

Another possibility also currently under consideration by MAFAT is giving every crew member an advanced smart helmet, similar to the advanced helmets worn by airplane pilot, which constantly broadcasts and screen all the information needed by the soldier on the battlefield.

The future tank's most outstanding feature is its evasiveness, or as the Ministry of Defense puts it, its "invisible signature." For observation or detection systems, the tank's presence in the field will be so well hidden as to be completely invisible. "There are all sorts of methods that have enabled us to achieve this, but it won't happen tomorrow morning," Gold says. "The goal is to improve survival capabilities in the maneuvering of ground forces."

The future tank will be able to both defend itself with active defense systems and provide perimeter defense for vehicles following it if it is leading a battlefield convoy, including infantry forces operating around it. It will take the lead and detect the threat aimed at the forces, and destroy them in time. The tank will also have a solution for mines laid in its path; it will be able to detect and destroy them on the move. "As of now, we are not investing in the vehicle itself; we are investing in the technologies that will be installed on it. Several defense

companies are involved in this," Gold says.

While the development of autonomous vehicles is attracting a great deal of fanfare, MAFAT is also looking ahead, with the aim of improving the capabilities of unmanned ground vehicles (UGVs), several models of which are already being used for missions such as border defense. The IDF has such vehicles, which are being used for border patrols, logistical transportation, and light engineering missions. Putting them into use is still slow, however, and their operational use is on a small scale.

The Ministry of Defense sees all the autonomous vehicle ventures being developed in the civilian sphere, but aimed at other purposes. While the future autonomous vehicles are designed to travel on paved roads, the IDF wants UGVs able to travel in field conditions and battle conditions, and which will have highly developed navigability capabilities, and also with remote firing capabilities.

Another development revealed yesterday by MAFAT is designed to make it possible to control an area without a presence there through the use of many hundreds of miniature sensors dispersed in it. The sensors will monitor, photograph, and listen to everything that moves in the area. "These sensors can be dropped from the air, which makes it possible to disperse them in the area and use them for monitoring. We're making great progress in this area, and have already conducted a very large and successful trial," Gold declares. Asked whether these sensors or others like them will also be able to explode next to a human target defined for them and destroy it, Gold said yes.

Sea trial

Another program is for the development of an unmanned submarine. There are two such

plans for an autonomous miniature submarine designed for scanning and mapping missions. The unmanned submarine is being developed together with a research team from Ben Gurion University of the Negev. A larger unmanned submarine, called Kisaron, is designed for covert missions, mainly intelligence gathering. Gold says that this intriguing vessel has already undergone a trial at sea.

Other programs in various development stages include a system called "First Bullet," aimed at dramatically upgrading the use of firearms. This electro-optical system will be installed on infantry assault rifles. It facilitates hitting the target accurately with a single rifle bullet in any situation and in any firing scenario.

By using the system, developed by a tiny startup, a combatant can press the trigger, but the rifle will shoot the bullet only when the target appears in the center of the sight, thereby ensuring an accurate hit. The Ministry of Defense says that trials of the system, its use significantly increased the percentage of hits, and reduced the risk of hitting uninvolved bystanders in an urban warfare scenario.

MAFAT is also devoting a great deal of thought to air operations. It is refusing to disclose the major projects involving the next generation of UAVs that the defense industries are working on, but is unveiling programs for drones. One of these programs, funded by MAFAT, involves the use of a drone to conduct accurate sniper fire, while achieving battlefield surprise. The system will be tested in the coming year.

In addition, MAFAT is interested in a development plan by Israel Aerospace Industries Ltd. (IAI) (TASE: ARSP.B1) for building an unmanned helicopter that can bear a heavy payload for logistical purposes, while flying at speeds of up to 150 kilometers per hour using an internal combustion engine installed on it. At the same time, Aeronautics is developing, together with MAFAT, the

Yasuran drone, which has a maximum flight speed of 75 kilometers an hour. It is based on batteries and hybrid propulsion, and is capable of bearing payloads of up to 90 kilograms.

It will take years before the vast majority of these projects is ready. After passing a process of proving feasibility and successfully passing through a long series of trials, they will be increasingly integrated in IDF units.

"There are already successes"

As for the tunnels threat that has been facing the IDF and the defense establishment for year, and whose monstrous scope was fully revealed three years ago during Operation Protective Edge in the Gaza Strip, Gold selects his words carefully: the strenuous activity by development teams in MAFAT and the defense companies aimed at development a fully effective solution to the threat - an Iron Dome for the tunnels - is classified, and the Ministry of Defense is providing little information about it. "The challenges and gaps in the matter are known," Gold says. "It is to both prevent digging and detect existing tunnels, and eventually to destroy them, or be able to map them and fight within them -we are investing in many spheres, and there are already successes. Israel is the first in the world to achieve technological successes in this matter."

The Ministry of Defense is currently promoting work to build an underground wall around the Gaza Strip as an answer to the threat of cross-border tunnels from the Gaza Strip. At the same time, the effort to find a technological solution is also proceeding: "We are working simultaneously on both the physical barrier and the technology. It is a chain of technologies and developments that will be integrated in the comprehensive solution. There are already tools in place that are being tested. We have already tested over 100 different solutions. There is already

technology ready, but it is not a 100% solution."

How much is it costing us? "The answer is complicated and classified."

Asked about the budget available to him for the 1,500 development programs that teams are working on, Gold does not mention any figures, claiming that the answer is "too complicated, and in any case classified."

Each one of the three special MAFAT administrations has a separate budget from the defense budget, in addition to MAFAT's basic annual NIS 800 million R&D budget.

The three MAFAT administrations are Homa, which is responsible for air defense against rockets and missiles; the Etgar space administration, which deals with satellites; and the UAV administration. In addition to these administrations, MAFAT also has six units operating in it, two centers, including research and technological infrastructure, and R&D.

In addition to the 500 officers and civilians employed in MAFAT's unit, it subsidizes the salaries of 2,000 researchers and employees in higher education and the defense industries that it classifies as "knowledge hubs."

These 2,000 civilians are committed as part of their jobs to MAFAT's tasks in accordance with multi-year work plans, and the same is true of cooperative efforts with other defense companies for the sake of ventures of national importance.

The defense industries pay these workers' salaries, but receive subsidies from MAFAT.

Foreign investment in Israel up 7%

320 multinational companies operate in Israel with 30 new companies starting operations

in 2016, the Foreign Investments Authority reports.

Investments in Israel by foreign companies totaled \$12.6 billion in 2016, 7% more than in 2015, according to the Ministry of Economy and Industry Industrial Cooperation and Foreign Investments Authority. The figures show that 320 multinational companies operate in Israel, and the pace at which such companies are starting to do business in Israel has tripled from 10 a decade ago to 30 in 2016.

The Foreign Investments Authority also reported that almost 10% of all employees in the business sector work at multinationals doing business in Israel. The average salary at these companies is 88% higher than the average salary in local companies and 14% higher than the average salary in local companies doing similar business.

According to the published figures, foreign companies operating in Israel account for half of total business R&D spending, and have 50,000 employees in this sphere. 200 of the foreign industrial companies operating in Israel have both production and R&D activity in the country.

The Foreign Investment Authority expressed satisfaction with the figures, particularly in view of the fact that global foreign investment declined 2% in 2016.

Competition with Ireland

The figures were revealed yesterday at the first-ever conference of multinational companies held by the Foreign Investment Authority. Ziva Eger, who heads the Foreign Investment Authority, had trouble giving "Globes" an estimate for foreign investments next year, but it is known that representatives of the Authority and senior Ministry of Economy and Industry officials, including Minister of Economy and Industry Eli Cohen,

are in accelerated talks with a number of multinationals on having them invest in manufacturing or R&D activity in Israel.

According to Eger, Israel's tools for aiding multinationals position Israel as one of the world's most attractive targets for investment. "Our biggest difficulty is against Ireland. In contrast to Israel, Ireland is an English-speaking country close to the entire European market. It has regulatory stability and a mechanism with a huge budget for providing incentives to foreign countries to enter the country," Eger explains.

"Thanks to foreign investments, Ireland emerged from the great economic crisis at the end of the previous decade, but Israel still has a unique technological advantage and tax benefits that make it an attractive target. While the corporate tax rate in Ireland is 12.5%, a foreign investor coming to Israel can receive benefits offered on the strategic track, such as a 5% corporate tax rate."

Eger adds that Chinese companies are showing interest in Israel companies, and "For them, Israel is a bridge to Europe and new markets in which they are interested."

The Ministry of Economy and Industry reports contacts with at least 10 multinationals or their subsidiaries concerning possible investment in Israel, but declines to specify which companies are involved.

It was recently reported that Chinese computer manufacturer Lenovo intended to invest in Israel, and to establish activity in the country, while considering the acquisition of local companies in the coming years, and also opening development or production centers. In recent weeks, Cohen met with representatives of Chinese company Legend Holdings, the controlling shareholder in Lenovo.

Ministry of Economy and Industry sources told "Globes" that in addition to Lenovo, another multinational was negotiating with governmental parties for a possible investment in setting up an advanced production facility in northern Israel that would create 200 jobs.

In another case, senior Ministry of Economy and Industry officials are holding intensive talks with an multination that already has activity in Israel for a substantial investment that will significantly expand its business in Israel.

US Army to test Iron Dome for use in Europe

Iron Dome, developed by Israel's Rafael, will compete against other short-range rocket defense systems in a trial this month.

The US Army may to buy Israel's "Iron Dome" system for defense against short-range rockets at its military bases in Europe, according to a report in "Defense News". The Americans will test the system this month at the White Sands Missile Range in New Mexico, together with competing systems. The US Army has not yet set a timetable for procurement of the system that is selected in the trial. According to "Defense News" the US Army sees an urgent need to plug a gap in its defenses in Europe until a permanent solution to the problem is developed.

Iron Dome, which was developed by Rafael Advanced Defense Systems Ltd., will face competition from systems such as the vehicle-mounted "Stryker" system, developed jointly by Boeing and General Dynamics. All the systems being tested are capable of being deployed within a short time.

The US gave generous financial aid for the development and production of Iron Dome. Rafael teamed with US company Raytheon

to produce the systems, and more than 50% of the components of the "Tamir" interception missile that the system uses are made in the US. If Iron Dome is selected by the US military, the system will become entirely American, with Raytheon as the main contractor and Rafael as a sub-contractor.

Rafael did not comment on the report. Since Iron Dome entered service in 2011, it has succeeded in destroying more than 1,500 rockets fired against Israel from the Gaza Strip.

Tene raises \$410m private equity investment fund

The new Israeli fund, Tene's fourth, will focus on manufacturers of industrial exports.

The local private equity industry continues to raise huge amounts, thanks to the impressive returns it is generating for investors. Sources inform "Globes" that Tene Investment Funds Ltd. closed its fourth fund in recent days, having raised a total of \$410 million. The fund is likely to invest in export companies, and will receive the usual 2% management fees for investment funds. i.e. \$8.2 million a year. There are also management fees amounting to 20% of the profits above a threshold 8% return.

Tene, led by senior managing partner Dr. Ariel Halperin, is one of Israel's leading private equity funds. It specializes in investments in industrial companies. Its original focus was on kibbutz (collective settlement) industry. Among other things, the fund has invested in Netafim Ltd., Caesarstone Sdot Yam Ltd. (Nasdaq: CSTE), SCR, Chromagen, Gadot Chemical Tankers and Terminals, and Omen High Pressure Die Casting.

Before the current fund, Tene was managing \$500 million in assets in three funds, and its portfolio contains companies from the three

preceding funds. The new fund is Tene's largest: the first raised \$60 million, the second \$145 million, and the third \$310 million.

Halperin told "Globes" today, "Tene's investment strategy will remain the same as it was in the previous funds. We're focusing on mature industrial companies with potential for development and growth outside Israel – that's an important point for us."

According to Tene's website, Israel has over 5,100 mature and growing industrial companies that account for over 45% of the country's industrial output. The fund is looking for established companies with export-oriented profits, and says that it adds a great deal of value to them.

Success with Netafim and Caesarstone

Three founders – Halperin, Eyal Attia and Dori Brown – founded Tene in 2005. One of Tene's most prominent investments to date, through its first fund, was \$30 million for 10% of kibbutz irrigation company Netafim in 2006. Control of Netafim was sold to Permira at a company value of \$850 million, generating a 180% return in five years for Tene.

Another prominent investment by Tene was in Caesarstone Sdot Yam, which produces quartz surfaces used in kitchens and bathrooms, for example. The fund had a successful exit in 2013, when it sold its holdings in the company at a handsome profit, seven years after investing in it when it was a private company. Tene was the first external investor in Caesarstone, and led it to an IPO on Wall Street.

Tene's original investment in Caesarstone was \$39 million, and it sold its holdings in the company for \$186 million - a return of almost five times the original investment. Tene went back to investing in Caesarstone a year ago, buying 2.9% of the company from Kibbutz Sdot

Yam for \$43.5 million. Despite the small size of its holding, the fund has a shareholders' agreement with the kibbutz; together, the two entities own a third of the shares in the company, whose current market cap on Nasdaq is \$1 billion.

Yet another successful exit by Tene was when it sold SCR, which manufactures cowshed management systems, three years ago to US company Allflex.

Tene owned 51% of SCR, which was sold at an operating value of \$250 million in cash (the debts of the sold companies were deducted from this amount). Tene first invested in SCR in 2009.

"When we started operating in 2004-2005," Halperin previously told "Globes," "there were many opportunities in kibbutz industry. There is no doubt that this initial plan by Tene relied on familiarity with the kibbutz sector, a knowledge of quite a few industries, and opinion makers in the kibbutz sector."

Was this because of your previous job, in which you were in charge of the kibbutz debt settlement?

Halperin: "I finished the job in 2000, and Tene made the investment five years later, so there was a fairly long period in the middle, but yes, a large part of this familiarity was gained during the period was when I was in charge of the settlement in 1992-2000.

At that time, when you began investing in kibbutz industry, it was much less acceptable than it is now.

"I can't say that Tene invented anything. What we did know was how to manage and close such investments, and we had the privilege of working with companies that achieved substantial growth and gains when we were in them."

Private equity investment in Israel remained low in Q2

Only \$412 million was invested down from \$1.26 billion in the second quarter of 2016, IVC-Shibolet reports.

Israeli and overseas private equity funds were involved in 19 private equity deals in the second quarter of 2017, investing \$412 million, the latest IVC-Research - Shibolet & Co. law firm survey has found. Notably, less deals were performed this quarter compared with the second quarter of 2016 (22 deals) and the first quarter of 2017 (29 deals), a 21% decline from the three-year quarterly average (24 deals). The total invested by private equity funds in the second quarter of 2017 was slightly up from the \$396 million invested in the preceding quarter, but significantly lower than the \$1.26 billion invested in the corresponding quarter of 2016.

The first half of 2017 saw 48 deals reaching \$807 million, the lowest amount invested by private equity funds in three years, compared with \$1.52 billion and \$2.07 billion invested in the first halves of 2016 and 2015, respectively. Despite the decrease in capital, the number of deals grew 17% year-on-year from 41 deals in the first half of 2016, slightly below the five-year average of 50 private equity deals.

Shibolet & Co. partner Adv. Omer Ben-Zvi said, "Although the number of Israeli private equity deals grew in the first half of 2017, we have not yet seen any mega deals since the beginning of this year, which typically immensely affect the total dollar amount scope. The largest PE deal in the first half of 2017 was the \$140 million buyout of R2Net by Francisco Partners, as all other deals during that term amounted to \$50 million or less."

He continued, "Recently the press reported a forecasted \$400 million buyout of Francisco

Partners' equity in NSO by Blackstone. This joins some other major deals already announced in the third quarter of 2017, such as the \$100 million buyout of Tuttenauer by Israeli PE fund Fortissimo, and a \$75 million investment by Insight Venture Partners in WalkMe. Israeli private equity market, according to our observation, demonstrates a stable activity and continues to be a steady attraction for overseas private equity firms. We believe that although the market is cautious in terms of valuations, there are great Israeli opportunities for substantial private equity deals to come."

Israeli private equity funds participated in only eight deals in the second quarter of 2017, investing \$164 million, or 40% of total PE capital, almost equal to the \$161 million invested in the second quarter of 2016, but 46% lower than the \$306 million invested in the first quarter of 2017. The number of deals in the second quarter of 2017 was 43% below the five-year average, down from 16 and 10 deals in the preceding quarter and corresponding quarter respectively. AMI Opportunities implemented the largest deal buying 55% of Max Stock for \$47 million in a buyout deal in the second quarter of 2017.

Despite the slow second quarter, the IVC-Shibolet survey revealed that Israeli PE funds performed better in the first half of 2017 compared to the first half of 2016, both in terms of deal number (24 vs. 20) and amounts invested (\$470 million vs. \$271 million). This was mostly due to their successful first quarter of 2017, when the two largest deals were struck - the buyout of Telefire Fire & Gas Detectors by Tene Growth for \$76 million and the \$50 million buyout of Ace Auto Depot by Kedma.

IVC Research Center research manager Marianna Shapira said, "In the first half of 2017, we observed seemingly contradictory findings in the private equity market in Israel: a growth

in the number of deals, combined with a decrease in the amount of capital invested. This stems from two complementary trends - increased deal-making by Israeli PE funds from the first quarter (which, however, decelerated towards the middle of the year) combined with average levels of activity by foreign PE funds (25 deals), as in the past three years - resulted in a higher number of deals."

She added, "In terms of capital investments, foreign PE funds spend noticeably less capital in the first half of 2017 - \$337 million, or a 59% decrease from the five-year average of \$816 million. This reflected the low buyout activity of foreign PE funds (only one \$140 million buyout was registered in the first half of 2017), while, on average, buyout deals involving foreign PE funds are above \$300 million per deal. Though Israeli funds performed above their average investment level of the past three years (a 19% increase) in the first half of 2017, the amounts they invested have less impact in terms of total capital investments. The combination of those trends points out that private equity funds apply a cautious investment strategy, preferring dispersing smaller amounts among larger number of deals in the first half of 2017."

According to IVC Research Center's analysis, 41 Israeli private equity management companies are currently active, managing a total of \$13 billion in capital, with an estimated \$1 billion available for new investments. In the first half of 2017, only Sky Private Equity III closed capital, raising \$200 million; five other funds are in the process of raising capital.

Medtronic to set up Israeli R&D centers

The medical equipment firm is opening development centers in Jerusalem and Yokneam in cooperation with the Israel Innovation Authority.

Medical equipment company Medtronic will be the first company to establish a development center in Israel in cooperation with the Israel Innovation Authority. In return for hiring 100 employees in spheres beyond the company's existing activity in Israel, the company will receive a \$14 million grant from the Innovation Authority. Following approval of the grant in recent days, the new deal between the state and Medtronic is a handshake away.

It is believed that the grant will be spread over three years by paying 30% of the salary of those working in the development center. The new activity will be in two locations: Jerusalem and Yokneam, and will involve brain monitoring (Jerusalem) and big data for medicine (Yokneam).

The expansion of Medtronic's activity in Israel was agreed four months ago in the framework of a meeting between Ministry of Economy and Industry Eli Cohen, Israel Innovation Authority CEO Aharon Aharon, and Medtronic chairman and CEO Omar Ishrak. A senior source in the Ministry of Economy and Industry said that in addition to a number of contacts at various stages taking place between the state and multinationals interested in investing in the Israeli economy, initial negotiations were also being conducted with a major pharmaceutical company.

The source said, "The background to these companies' interest in investments in Israel involving the opening of development or manufacturing centers is the attractive tax environment in comparison with other countries and the low tax rate on intellectual property."

Other Ministry of Economy and Industry sources said that talks were taking place with representatives of 10 multinationals for possible investment in Israel. The sources claim that a low media profile is being maintained in these contacts in order to avoid wrecking them.

According to Innovation Authority figures, foreign investment in Israel totaled \$12.6 billion in 2016, 7% more than in 2015. The Innovation Authority said that 320 multinationals were operating in Israel.

Investment in companies and partnership in incubators

Medtronic has a deep, long-standing, and extensive connection with the Israeli medical equipment industry. It has 750 employees in Israel out of its 85,000 employees in 65 development centers worldwide.

In addition to its marketing branch, which has been here since 1974, Medtronic has also acquired Israeli medical equipment companies. These companies grew several times over in size in some of these cases, while in others they were closed down or transferred abroad.

The first case was the 2006 acquisition of Odin Medical Technologies, founded by Dr. Amit Goffer, which dealt with MRI imaging for brain surgery. Odin was acquired for a mere \$9 million, but it developed and expanded into an important Medtronic development center in Israel. Ventor Technologies, acquired in 2009 for \$325 million, had a less happy ending, despite the big plans when it was acquired; it was closed down. The same thing happened to Disk-O-Tech Medical Technologies, which was acquired by Kyphon, a company later acquired by Medtronic. BioControl Medical, in which Medtronic invested large sums, failed in its clinical trials a few years ago, and was also closed down.

In 2014, Medtronic acquired Covidien, which shortly before that went on an acquisition spree in Israel that included superDimension, Oridion Systems, PolyTouch Medical, and Given Imaging at an aggregate price of \$1.6 billion. As far as is known, the activities of these companies are still taking place in

Israel under the Medtronic umbrella. Medtronic also invested in Itamar Medical, is an investor in many Israeli venture capital funds, and is also a partner in the MindUp incubator in Haifa, which deals in digital medicine. Medtronic currently has a fruitful partnership with Mazor Robotics Ltd. (Nasdaq: MZOR; TASE: MZOR). Medtronic invested over \$70 million in Mazor, and became the exclusive distributor of its spinal column systems.

Industrial drone co Airobotics raises \$32.5m

The Petah Tikva based company is expanding operations in industrial facilities such as mine sites, refineries, seaports, oil and gas facilities and more.

Israeli industrial drone developer Airobotics announced today the closing of a \$32.5 million financing round led by BlueRun Ventures China, as well as Microsoft Ventures, OurCrowd.com and another strategic investor. Airobotics has also received funding from existing investors including, CRV, BRV, Noam Bardin (Waze CEO), Richard Wooldridge (former COO/GTM of building 8 at Facebook and former COO of Google ATAP) and David Roux (Co-Founder and former Chairman of Silver Lake Partners).

Airobotics is expanding operations in industrial facilities such as mine sites, refineries, seaports, oil and gas facilities and more. With this fundraising, the company is also announcing its new division of Homeland Security and Defense, as well as its new "Airobotics Safe Cities" initiative: using fully automated drones to perform emergency critical applications in cities.

Airobotics has developed a fully automated end-to-end drone solution, used for collecting data and gaining aerial insights. This first of its kind solution reduces risks and costs associated with drone operations while improving efficiency.

Airobotics is the first company in the world to be granted authorization to fly fully automated drones without a pilot, as licensed by the Civil Aviation Authority of Israel (CAAI), which positions the company as a world-leader in the field of automated drones.

The Petah Tikva based company, which was founded by CEO Ran Krauss and VP R&D Meir Kliner, raised \$28.5 million last year.

Krauss said, "We continue to execute our vision: taking the human pilot out of the loop and increasing the value drones can create. This fundraising enables us to continue to expand, within industrial facilities, and with our newly launched Defense division. Our next stop - automated drones in cities." "Drones have enormous potential to impact how we live and work – making cities safer, improving response times during emergencies, and creating more efficient industrial facilities," said Mony Hassid, General Manager and Managing Director, Microsoft Ventures EMEA. "Fully automated drones will be a big step forward for the industry, so we're excited to support Airobotics' ambition in this space."

Shari Arison selling 49% of her Bank Hapoalim stake

An memorandum of understanding has been signed with investors from North America.

Shari Arison is selling 49% of Arison Holdings, which holds the controlling stake in Bank Hapoalim (TASE: POLI), the bank reported to the Tel Aviv Stock Exchange this morning.

A memorandum of understanding on the deal has been signed with an investment firm and financial institutions from North America.

The buyers insist on anonymity at this stage, but they are believed to be entities that manage billions of dollars and that currently have almost no activity in Israel.

The consideration for the shares will be calculated according to Arison Holdings' shareholders' equity, on the basis of a price of NIS 24.82 per share for Bank Hapoalim, which represents a premium of 2.8% over the base price of the bank's shares on the Tel Aviv Stock Exchange this morning.

This price gives a total consideration of some NIS 3.3 billion for the shares being bought. This is not, however, the actual amount that Arison will receive, as the deal is for the sale of shares in Arison Holdings, which will mean taking into account the group's other assets and its debts, and additional components, so that the sum accruing to Arison will probably be lower than the total deal amount.

The Arison group has a substantial debt to bondholders, but sources close to it say that the aim of introducing these investors is to carry out new investments, and not to reduce debt. Several steps have been taken in the past two years to lower the group's financial leverage.

The buyers are not investment funds seeking to improve the bank's profitability and make a quick profit on the deal, but entities making a long-term investment and able to assist Bank Hapoalim in its plans for expansion in the US.

Bank Hapoalim is currently under investigation by the US authorities on suspicion of having helped US customers evade taxes. It is somewhat surprising that US investors would agree to invest in the bank despite the fact that this cloud still hangs over it.

Bank Hapoalim states that there is no certainty that a final agreement will be signed, and that in any case any deal is subject to a due diligence examination by the investors, and regulatory approvals, such as from the Bank of Israel, which could take months to obtain. The parties also need to agree on such matters as representation on Bank Hapoalim's board.

Control of the bank is expected to remain with Arison, who will still hold 51% of Arison Holdings.

The Bank of Israel is aware of the deal being put together, and has given initial approval for it. It views the kind of investors that Arison is bringing into Bank Hapoalim in a positive light. Arison Holdings made enquiries at the Bank of Israel and disclosed to it the identities of the parties with which it is negotiating, before the release of today's announcement. Nevertheless, the Bank of Israel will not give official approval before it has carried out a thorough examination of the entities concerned.

SAP buys Israeli startup Gigya for \$350m

Gigya develops social platforms for Internet sites.

German software giant SAP is acquiring Israeli startup Gigya. According to market sources, the deal price will be \$350 million in cash. Gigya develops social platforms for Internet sites. The company is estimated to have an annual turnover in the tens of millions of dollars. SAP is one of the world's largest software houses, and is traded at a market cap of \$130 billion.

According to IVC, Gigya has raised \$105.8 million to date. Its latest financing round was in 2014 and among its investors are Intel Capital, which led the latest round, Vintage Investment Partners, Benchmark and others.

Gigya was founded in 2006 by Rooly Eliezerov, who is president of the company, Eyal Magen, chief strategy officer, and Eran Kutner, CTO. The CEO is Patrick Salyer. Gigya has 300 employees in Israel, the US and UK including 100 in Tel Aviv.

SAP declined to comment on the report but a source in Germany told "Globes" that an official announcement about the acquisition had been

planned for tomorrow but there had been a leak ahead of time to the Israeli media.

SAP already has two development centers in Israel in Ra'anana and Karmiel and 700 employees in Israel.

In a past interview with "Globes", Salyer said, "The days of anonymity on the Internet are over. And that's a good thing. Consumers have made it very clear that personalization is here to stay. To get there, businesses need to understand what consumers want and need, and that begins with identity. The problem is that many approaches to gathering and managing information on customers on the Internet violate users' privacy and are mostly inaccurate or inefficient.

"We designed our user identity platform from the start to manage the complexity of the modern consumer's identity, including dealing with matters such as social, mobile, privacy, and security. Our partnership with Intel will enable us to continue innovating and to make the web more suited to everyone."

TAT Technologies wins \$40m US airline deal

The Israeli company has won an estimated \$40 million contract to renovate and maintain auxiliary power units (APUs) for the Boeing and Airbus fleets of a US airline.

TAT Technologies Ltd. (Nasdaq:TATT; TASE: TATTF), controlled by FIMI Opportunity Funds, has won an estimated \$40 million contract to renovate and maintain auxiliary power units (APUs) for the Boeing and Airbus fleets of a US airline. The contract is through TAT subsidiary Piedmont Aviation Component Services, TAT Technologies notified the Tel Aviv Stock Exchange (TASE) today.

The maintenance work on the APUs will be carried out at Piedmont Aviation's facility in

North Carolina, starting in the fourth quarter of 2017. The contract is for five years.

TAT Technologies' share responded to the news with a 6% jump, putting the company's market cap up to NIS 355 million. The share has climbed more than 40% over the past year.

"Up until now, we have supported renovation some of the heat exchangers and landing gear of this fleet, and we will now also be responsible for maintaining the APUs," said TAT Technologies president and CEO Igal Zamir.

TAT Technologies, which supplies civil and military aviation products and services, was formerly regarded as one of FIMI's less successful investments. Over the past year, however, the trend has changed, and the share is on a positive trend, after remaining unchanged for the three years after FIMI acquired the company.

FIMI acquired 6% more of TAT Technologies' share capital nearly a year ago from US investment fund Leap Tide Capital Management, thereby increasing its stake in the company to 59.5%. FIMI acquired control of TAT Technologies in 2013 for NIS 125 million, reflecting a NIS 233 million value of the company.

IBM buys Israeli data center co Cloudigo

IBM exec: The Cloudigo Ltd. team brings talent and technology that closely aligns with IBM investments in advanced network processing.

IBM has acquired Israeli data center company Cloudigo. No financial details were disclosed but the acquisition was for a small amount according to sources close to the deal.

Cloudigo is building next generation data center infrastructure and networking services.

IBM Watson and Cloud Platform cloud infrastructure Svs general manager John Considine wrote in a blog on IBM's website, "IBM acquired a high-performance team focused on advanced networking technology that moves the networking function from the server to the edge, increasing data center efficiency. The Cloudigo Ltd. team brings talent and technology that closely aligns with IBM investments in advanced network processing, as part of its cloud platform. The team will work in the Cloud Innovation Lab, which is part of the IBM Cloud Infrastructure group."

Cloudigo cofounder and CEO Eran Gampel and cofounder and CTO Gal Sagie both shared the news of the acquisition on their Linked-In pages. Sagie said, "Very excited to share that IBM has acquired Cloudigo, we are joining an incredible team with an important mission to make networking infrastructure great in hyper scale. looking forward to it!"

China's Fosun buys Alma Lasers for \$240m

Alma Lasers develops light-based, radiofrequency and ultrasound products for aesthetic and medical applications.

China's Shanghai Fosun Pharmaceutical Group Co. Ltd. (SH: 600196; HK: 02196) and its subsidiary Pramerica-Fosun Fund have announced the acquisition of a 95.6% stake in Alma Lasers Ltd. for \$240 million. This is Fosun's first acquisition since its public offering.

Alma Lasers manufactures laser, light-based, radiofrequency and ultrasound products with integrated product portfolios for aesthetic and medical applications, and has leading edge R&D capabilities in the medical and aesthetic device manufacturing field.

Alma Lasers has a 15% share of the global market for high-end aesthetic devices with annual revenue of nearly \$100 million.

Alma CEO Ziv Karni said, "Alma's team is glad to become one of the members of Fosun Pharma. Fosun Pharma has previous successful experience in mergers and acquisitions and the medical healthcare field as well as the medical aesthetic device fields. These strategic development foci will become Alma's excellent platform in Asia as well as in its world business development. We do look forward to cooperating with Fosun Pharma's management team and benefitting from their professional experiences."

Alma Lasers was founded in 1999 by former employees of ESC Medical Systems (subsequently Lumenis). The company is today headquartered in Illinois with its development center in Caesarea. A 73% controlling stake in Alma Lasers was acquired by the TA Associates private equity fund in 2006 for \$90 million. Karni holds a 17% stake in the company.

Alma Lasers began doing business in China in 2003, and has already become the market leader in the exclusive field of medical cosmetic lasers. China is one of the biggest markets for Alma Lasers by far.

Fosun Pharma chairman Chen Qiyu said, "We are confident in the growth of the global aesthetics industry, especially in China, Brazil, Russia and India. This represents a huge development space in developing countries. We will continue to support the global business development of Alma Lasers."

Fosun Pharma said it will establish Alma Lasers as a management platform for the R&D, manufacturing and sales of high-end medical devices, providing an internationalized development path for the company.

Playtika acquires social games co Jelly Button

Playtika will pay a sum in the tens of million of

dollars for Jelly Button, which has 80 employees in Tel Aviv.

One year after being acquired for \$4.4 billion by a Chinese consortium led by game developer Giant Interactive, Playtika today announced that it had completed the acquisition of Israeli company Jelly Button, its 10th acquisition, for a sum in the tens of millions of dollars. The acquisition is part of Playtika's strategy of diversifying its games catalogue and leading the table games market. The acquisition price is in the tens of millions of dollars

Playtika's three leading games were acquired shortly after they were launched: World Series of Poker, Bingo Blitz, and House of Fun. All three games are regularly rated as the most profitable games in the applications stores of Google, Apple Inc., and Facebook.

Jelly Button acquired a wide reputation in the social games industry with casual games that attract tens of millions of users. Founded in 2011, the company has over 80 million downloads and proven experience in developing high-quality games. Jelly Button has 80 employees at its Tel Aviv headquarters. Jelly Button has raised just \$1.5 million to date.

Playtika cofounder and CEO Robert Antokol said, "Since our first acquisition in 2012, Playtika has been successful at identifying promising products and teams and leveraging our marketing, monetization, and analytics capabilities to materially grow our acquired businesses. Jelly Button has exactly that – a great team and great products – and we are excited to take Jelly Button's games to the next level."

"As an Israeli company and a mobile games company, we have long been amazed by

Playtika's success. This is an incredible opportunity to leverage their resources and expertise in monetization and combine them with our creativity," said Jelly Button CEO, Ron Saranga. "Ultimately, the biggest beneficiaries of this transaction are our players."



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